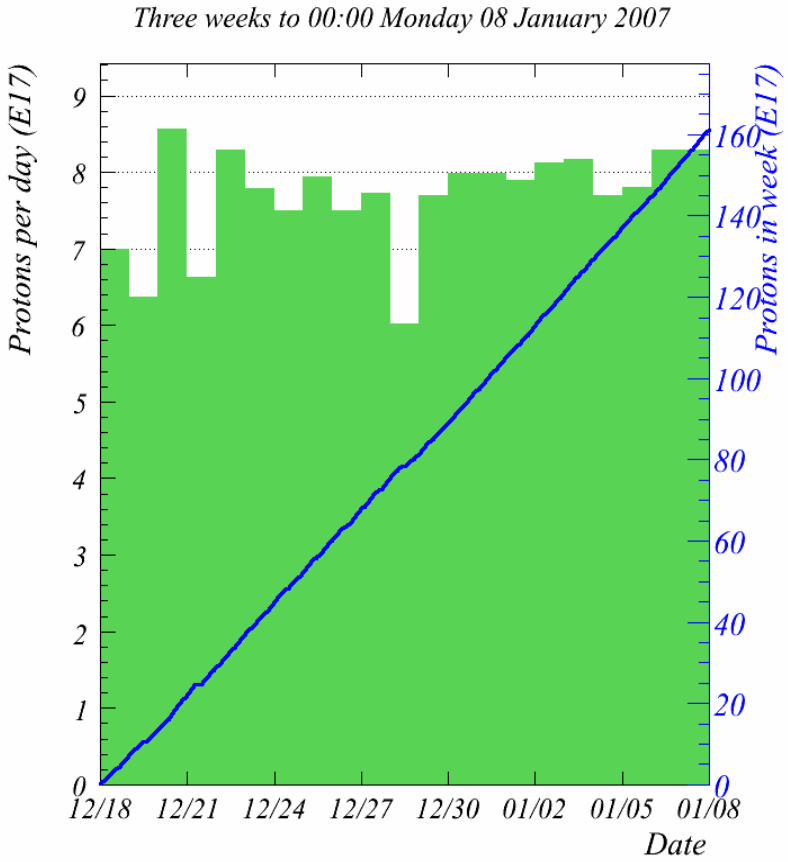
NuMI-MINOS Status Report – S. Childress

- 3 Weeks Report: Dec 18 thru Jan 7.
- VERY good beam operation !
  - NuMI beam & Accelerators
  - These are 3 of our 4 best weeks running with TeV on.
    - The 4th was over Thanksgiving week
    - We have benefited from both improved uptime and cycle time
  - Near & far detector uptimes > 98%
  - 16.16 E18 integrated protons for these three weeks

Daily Protons



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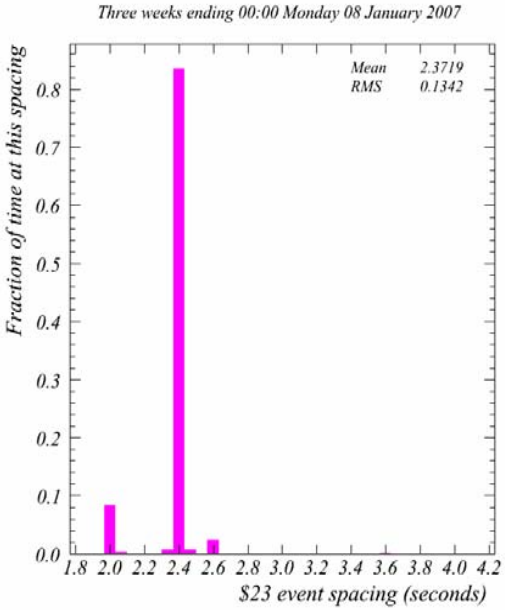
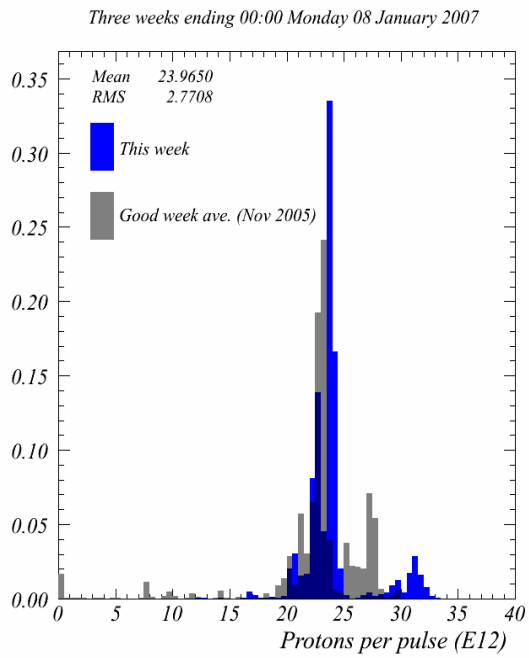
‹ 2.37sec/pulse › ‹ 2.40 E13 P/spill › ‹ 177. kWatts ›

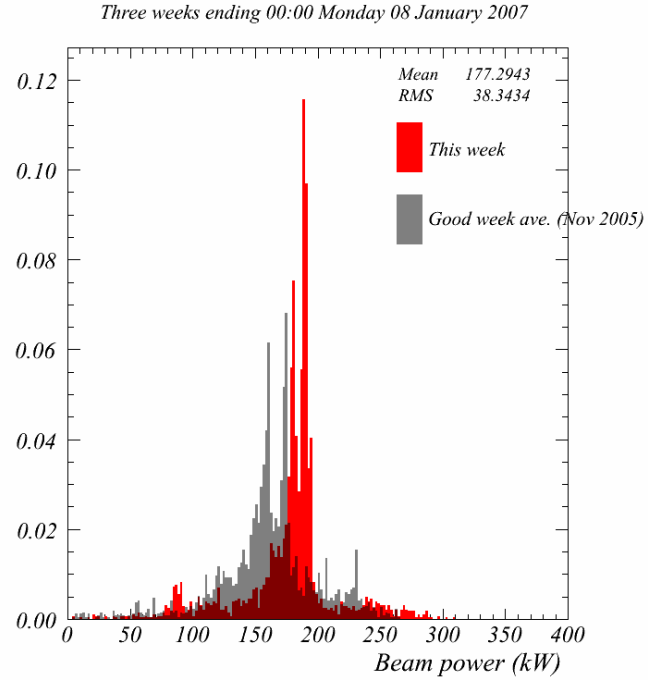
3 Week Statistics



Fraction of spills with the given Cycle Time in seconds



Protons per spill



Beam Power On Target

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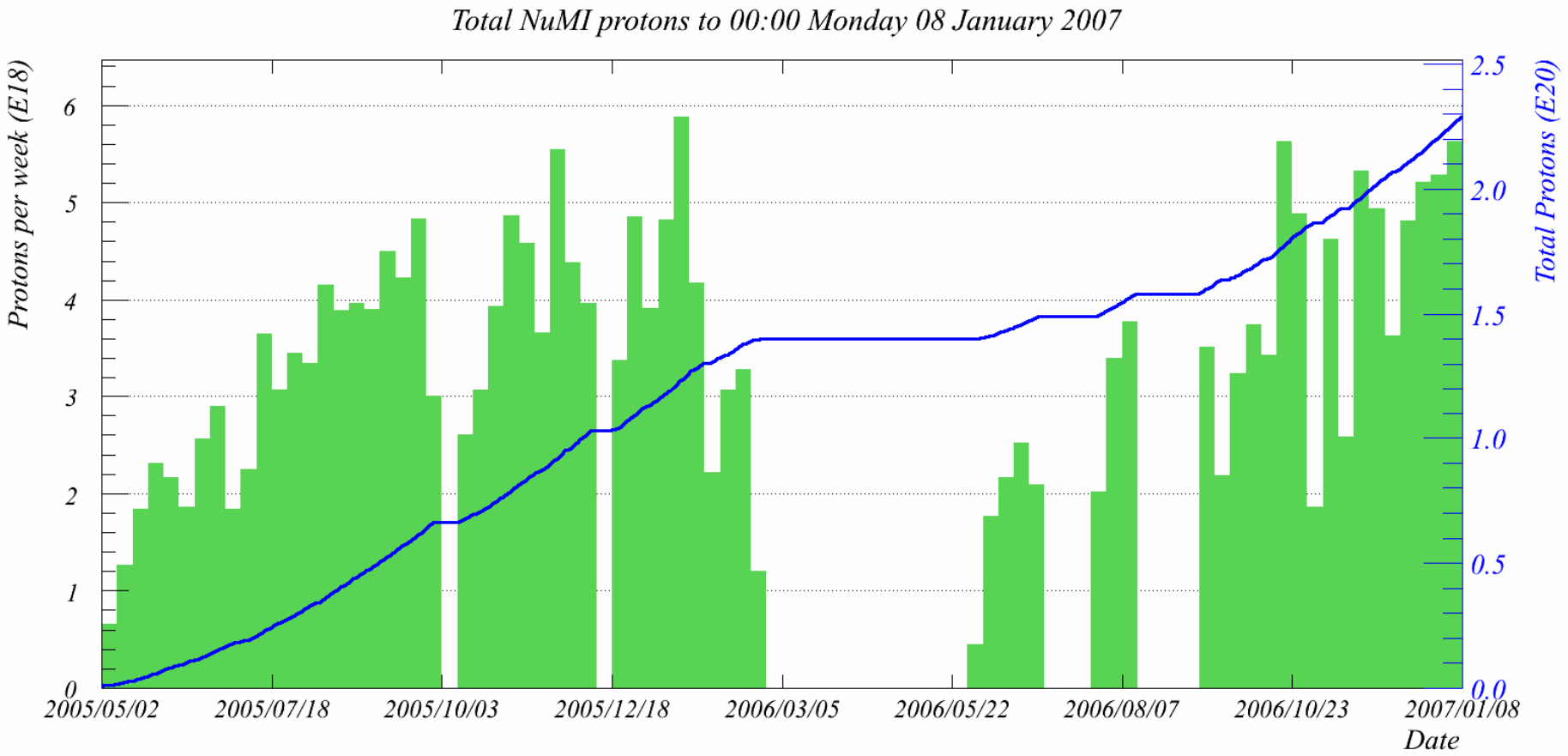

Protons per Week since May '05

5.21, 5.32, 5.63 E18 protons/week this period

Total protons 2.31 E20
Physics Data Set

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Improved Beam Power: more neutrinos!!

- In current operating modes, last 3 weeks have been "as good as it gets" – 185 to 190 kW to NuMI for mixed mode (Stacking & NuMI), and at 12 turns for Booster.
  - We reach 300 kW in NuMI only mode, but this becomes decreasingly small part of data sample when TeV is up; this will continue as transfer times are improved.
  - Significant improvement during ongoing TeV operation is with mixed mode operation.
- MINOS can benefit from:
  - Decreasing stacking rate from 2.4 to 2.2 sec ➔ 207 kW.
  - By also adding 1 slip stacked NuMI batch ➔ 240 kW.
  - By adding a 2nd slip stacked NuMI batch ➔ 273 kW.
- Discussions & efforts ongoing – many thanks!